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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/414,996	10/07/1999	CHARLES SLATER	CISCO-1341	4137

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EXAMINER

FOX, JAMAL A

ART UNIT

PAPER NUMBER

2664

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18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/414,996

Applicant(s)

SLATER, CHARLES

Examiner

Jamal A Fox

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) 4-6, 14, 15, 18-22 and 34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 7, 10-13, 23-33, 35-44 and 60-67 is/are allowed.
- 6) ☒ Claim(s) 8, 9, 16, 17 and 54-59 is/are rejected.
- 7) ☒ Claim(s) 45-53 and 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 56 is objected to because of the following informalities: Claim 56, line 2, after "which the", "reply" is spelled incorrectly. Appropriate correction is required.

Allowable Subject Matter

2. Claims 1-3, 7, 10-13, 23-33, 35-44 and 60-67 are allowed.
3. Claims 45-53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. The indicated allowability of claim 8, 9, 16 and 17 is withdrawn in view of the newly discovered reference(s) to Sidhu et al. (U.S. Patent No. 5,150,464). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 9, 54, 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidhu et al. (U.S. Patent No. 5,150,464).

Referring to claim 8, Sidhu et al. discloses a method for detecting a path to a first network device comprising:

initializing a hop count (initially set, col. 13 lines 38-44);

setting a first destination Ethernet address field to be equal to the Ethernet address of a first network device (col. 7 lines 25-48);

setting a first source Ethernet address field to be equal to the Ethernet address of a second network device (col. 7 lines 25-48);

transmitting (col. 13 lines 28-48) from the second network device a data packet (Fig. 9) containing the hop count, the first destination Ethernet address, and the first source Ethernet address to adjacent network device (Fig. 8 and col. 11 lines 58-68);
receiving (col. 13 lines 59-68) at the second network device a reply data packet containing a second destination Ethernet address corresponding to the Ethernet address of the second network device and a second source Ethernet address corresponding to the Ethernet address of one of the adjacent network devices (Fig. 8 and col. 11 lines 58-68).

Referring to claim 9, Sidhu et al. discloses the method in accordance with claim 8, wherein if the second source Ethernet address in the reply data packet is not equal to the Ethernet address of the first network device, the hop count is modified and transmitting and receiving are repeated, wherein the second source Ethernet address

corresponds to an Ethernet address of a network device sending the reply data packet (col. 16 line 48- col. 17 line 26).

Referring to claim 54, Sidhu et al. discloses the method in accordance with claim 9, wherein the hop count is modified by incrementing the hop count by one (col. 13 lines 38-44).

Referring to claim 56, Sidhu et al. discloses the method in accordance with claim 9, further comprising: storing information of the network device from which the reply data packet is received (Fig. 2 ref. signs 252, 253, and 254).

Referring to claim 57, Sidhu et al. discloses an apparatus (Fig. 8), for detecting a path to a first network device comprising:

- means for initializing a hop count (initially set, col. 13 lines 38-44);

- means for setting a first destination Ethernet address field to be equal to the Ethernet address of the first network device (col. 7 lines 25-48);

- means for setting a first source Ethernet address field to be equal to the Ethernet address of a second network device (col. 7 lines 25-48);

- means for transmitting (col. 13 lines 28-48) from the second network device a data packet (Fig. 9) containing the hop count, the first destination Ethernet address, and the first source Ethernet address to adjacent network devices (Fig. 8 and col. 11 lines 58-68);

- means for receiving (col. 13 lines 59-68) at the second network device a reply data packet containing a second destination Ethernet address corresponding to the Ethernet address of the second network device and a second source Ethernet address

corresponding to the Ethernet address of one of the adjacent network devices (Fig. 8 and col. 11 lines 58-68).

Referring to claim 58, Sidhu et al. discloses the apparatus in accordance with claim 57, further comprising:

means for modifying the hop count if the second source Ethernet address in the reply data packet is not equal to the Ethernet address of the first network device (Fig. 8 ref. signs 101, 102, 103, 105, 801, 802, 803, 804 and 805); and

means for repeatedly performing the means for transmitting and the means for receiving wherein the second Ethernet address corresponds to an Ethernet address of a network device sending the reply data packet (col. 16 line 48- col. 17 line 26).

Referring to claim 59, Sidhu et al. discloses a program storage device (Fig. 2) readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for detecting a path to a first network device comprising:

initializing a hop count (initially set, col. 13 lines 38-44);

setting a first destination Ethernet address field to be equal to the Ethernet address of the first network device (col. 7 lines 25-48);

setting a first source Ethernet address field to be equal to the Ethernet address of a second network device (col. 7 lines 25-48);

transmitting (col. 13 lines 28-48) from the second network device a data packet (Fig. 9) containing the hop count, the first destination Ethernet address, and the first source Ethernet address to adjacent network devices (Fig. 8 and col. 11 lines 58-68);

receiving (col. 13 lines 59-68) at the second network device a reply data packet containing a second destination Ethernet address corresponding to the Ethernet address of the second network device and a source Ethernet address corresponding to the Ethernet address of one of the adjacent network devices (Fig. 8 and col. 11 lines 58-68).

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidhu et al. in view of Hedge.

Referring to claims 16 and 17, Sidhu et al. discloses the method of claim 8, but does not teach of the first and second network device being a LAN switch. However, Hedge discloses a LAN switch in (Fig. 4 ref. sign 100). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the LAN switches of Hedge to the invention of Sidhu et al. in order to provide flow control of packets with different Ethernet addresses as suggested by Hedge (col. 11 lines 3-19).

8. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sidhu et al. in view of Callon et al.

Referring to claim 55, Sidhu et al. discloses the method in accordance with claim 9, but does teach of decrementing the hop count by one before forwarding the data packet to another network device. Callon et al. discloses decrementing the hop count by one before forwarding the data packet to another network device (col. 49 line 66-col. 50 line 2). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the decrementing of the hop count

by one of Callon et al. to the invention of Sidhu et al. in order to provide lifetime control of the packet as suggested by Callon et al.

Conclusion

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (703) 305-5741. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J.A.F.

Jamal A. Fox

A handwritten signature in black ink, appearing to read 'W. Chin', with a long horizontal line extending to the right.

**WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**